

Appl. No. : 10/078,283  
Filed : February 14, 2002

## AMENDMENTS TO THE SPECIFICATION

**After as-filed paragraph [0023], please insert the following paragraph:**

Figure 8A shows a variation of the embodiment of Figure 8.

Figure 8B shows another variation of the embodiment of Figure 8.

**Please amend as-filed paragraph [0030] as follows:**

[0030] With reference to Figure 1, one embodiment of the present invention comprises a multilumen catheter 10 designed to lessen ischemia that can occur when a large diameter catheter is inserted into a patient's blood vessel. The multilumen catheter preferably is of unitary construction and requires only one entry point into the patient's body. The multilumen catheter 10 comprises at least two lumens: a first lumen 12 and a second lumen 14. The first lumen 12 extends from a proximal end 16 of the multilumen catheter 10 to a first distal end 18. The second lumen 14 extends from the proximal end 16 of the multilumen catheter 10 to a second distal end 20. The lumens 12, 14 of the multilumen catheter 10 may be arranged one of many different ways. For example, the two lumens may be joined in a side-by-side manner, forming a "figure-8" when viewed from the proximal end 16. Alternately, a single cylindrical catheter housing may contain within it two or more side-by-side lumens. A cylindrical catheter housing could be formed with a diametral septum, i.e. a wall, extending across the cylinder at a diameter. A cylindrical housing with concentrically or coaxially positioned lumens is also contemplated. See, e.g., Figures 8A-10.

**Please amend as-filed paragraph [0042] as follows:**

[0042] Referring to Figure 8, yet another alternative embodiment of the present invention is a multilumen catheter 410 for directing the flow of blood through a patient through a single cannulation site. The catheter 410 comprises a proximal end 414, a first distal end 418, and a second distal end 422. The first distal end 418 extends distally farther from the proximal end 414 than does the

**Appl. No.** : **10/078,283**  
**Filed** : **February 14, 2002**

second distal end 422. A first lumen 426 extends between the first distal end 418 and the proximal end 414. A second lumen 430 extends between the second distal end 422 and the proximal end 414. As discussed above, the lumens 426, 430 may be joined in a side-by-side manner, as in Figure 8, or coaxially or concentrically positioned, as in Figures 8A and 8B. As with other embodiments, a radiopaque marker may be provided.

**Please amend as-filed paragraph [0046] as follows:**

[0046] The J-tip configuration, discussed above, is another means for redirecting blood in a direction generally opposite of the direction of flow of blood through the lumen 426. See Figure 8B.